Ministerie van Verkeer en Waterstaat

Tender philosophy and selection procedure

Maeslant Storm Surge Barrier

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Why D&C

- Eastern Scheldt storm surge barrier;
- Negative publicity;
- Budgetoverrun of 30%;
- Diminishing activities of governmental bodies

so.....

- Intention to realise a barrier following the basic principles of market mechanism philosophy;
- Contractors have to show their skills as designer and constructor.

Asked result

New for Rijkswaterstaat

Should result in a project where the owner would surely get:

- A storm surge barrier for a predetermined price;
- Value for money through competitive designing and bidding by Europe’s most outstanding designers/contractors;
- A technical state of the art work that complies with the specifications;
- Design and construction in one hand;

European competition 1

European contractor consortia were invited to:

- Draw up a preliminary design of a storm surge barrier, based on a limited number of rather abstract technical requirements;
- Present a lump sum price for the design and construction of the barrier, including 5 year-maintenance

Requirements on a high level to encourage innovation, bright and economical solutions

Period: 3 month

European competition 2

- 6 contractors applied for the tender

First selection:

- 5 consortia were invited to prepare the conceptual design and to offer a fixed price within 3 month

- During this 3 month RWS prepared the technical requirements for the next phase > basic requirements for reliability, operational management and characteristics for the barrier

European competition 3

- RWS felt the need to acquire sufficient knowledge of the specific “snags” in the design process, so…
- … they elaborated a number of conceptual designs to such a level, that all major areas (areas with the most risks) of interest were understood
- This was done during the same 3 month by a team of specialists

RESULT:

- A clear understanding of what was possible and what was not – where are the risks in the design!!

European competition 4

Key criteria for selection:

- **Reliability;**
- **Maintainability;**
- **Cost;**
- **Design quality.**

European competition 5

Second selection:

- **5 barrier designs;**

Based on the criteria:

- **The sector gate and the segment door are chosen;**
- **… for further competition.**

European competition 6

Final phase of selection:

- Hydraulic testing designs (Delft Hydraulic Laboratory) to eliminate all remaining uncertainties;
- Rijkswaterstaat monitored the testings;
- Consortia refined their bids;

European competition 7

After technical evaluation the BMK-sector gate (floated) is selected on the basis of:

- cost and …
- ….the simplicity of the technical concept;
- easy to maintain (drydock);
- limited parts remains under water;

European competition 6

- Procedure took almost a year;
- Step by step selection procedure guaranteed a continuing market mechanism;
- Induced the best quality;

But…

- **Don’t change the conceptual design during competition because the price is too high;**
- **Don’t change your requirements after contracting;**
- **Be sure that your preconditions in the contract are good and never change them;**